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Xylomyzon Pers. 1825. — *X. lacrymans* (Wulf.). See Xylophagus.

Xylophagus Link. 1809. — *X. lacrymans* (Wulf.). Proposed in Torreyia 3:7, 1903, as the type of a new family, the Xylophagaceae.

New York City.

THE GENUS SARCOSOMA IN NORTH AMERICA.

ELIAS J. DURAND.

The genus *Sarcosoma* includes several large gelatinous *Bulgaria*-like Discomycetes. It was proposed by Caspary, in a letter to Winter, for the *Bulgaria globosa* Fries, and a new variety, var. *platydiscus* Caspary. The description first appeared in Rehm's Discomycetes, page 497, 1891. In this place Dr. Rehm doubtfully referred to it the *Bulgaria rufa* Schw., and this species has remained the only known representative from North America. In August, 1901, I collected, at Blowing Rock, North Carolina, two *Bulgaria*-like fungi which are referable to this genus, and I have thought it desirable to bring together at this time complete descriptions of such forms as are at present known to occur in our flora. All of the following descriptions were made by me after a careful examination of the living plants, and the changes made by drying have also been noted.

SARCOSOMA Caspary, in Rabenh. Krypt. Flora, 1^s:497. 1891. *Burcardia* Schmidel, Anal. Plant. 3:261. 1797. (not Schreb. 1789). *Bulgaria* Fries, Syst. Myc. 2:166. 1822, in part.

A genus of the Bulgariaceæ. Plants not erumpent, sessile or stipitate, usually brown or blackish, at least externally, spongy-gelatinous. Asci long cylindrical. Spores 8, uniseriate, hyaline, continuous, elliptical. Paraphyses filiform, septate, branched.

Differs from *Bulgaria* principally in the superficial habit, and in the hyaline spores. Plants of large size growing on half buried sticks and branches.

A. Disk tawny-ochraceous

B. Plants stipitate, watery-gelatinous, shrinking much in drying; spores narrowly elliptical, 18-25 x 8-12 μ , cortex parenchymatous.

S. rufum.

B. Plants sessile, tough-gelatinous, shrinking but little in drying; spores broadly elliptical, 25-30 x 15 μ , cortex not parenchymatous.

S. carolinianum.

A. Disk black, cinereous-olive when dry.

S. cyttarioides.

SARCOSOMA RUFUM (Schw.) Rehm, Rabenh. Krypt. Flora 1^s: 497. 1891. *Bulgaria rufa* Schw., Syn. Fung. Am. Bor. p. 178.

1834. Exsicc. Ellis, N. A. F. no. 449; Ravenel, Fung. Car. fasc. no. 23.

Plants solitary or crowded on the branch, stipitate; when young very small, ovate-cylindrical, closed, the apex warty, soon opening exposing the very small disk, the whole plant then increasing greatly in size until maturity when the disk is saucer-shaped or plane, 3-6 cm. in diam., tawny-ochraceous, margin thin, crenate; stem turbinate, 2-3 cm. long, 2 cm. thick above, narrowed below to a small point of attachment, the whole exterior covered with a thin, appressed, blackish-brown tomentum, more or less wrinkled or rugose; consistency watery-gelatinous. When dry much shrunken, horny and brittle, externally deeply wrinkled, and the disk usually changed to a dull grayish-black excipulum of very slender hyphæ passing at the surface into a thin cortex of rounded brown cells $10\ \mu$ diam. Asci narrowly cylindrical, apex truncate-rounded, not blue with iodine, $300\text{--}350 \times 12\ \mu$; spores 8, uniseriate, hyaline, or with a pale yellowish tint, smooth, continuous, eguttulate, narrowly elliptical, $18\text{--}25 \times 8\text{--}12\ \mu$ (the majority $20 \times 10\ \mu$); paraphyses filiform, hyaline, septate, branched, apices very little thickened, not cohering.

On fallen, half-buried branches usually of oak, among leaves, June to August, common. Maine (Harvey); Mass. (Sprague); N. York (various col.); Penn. (various col.); N. Carolina (Curtis); Ohio (Morgan, James). The species will probably be found in all the States east of the Mississippi.

In the type, in herb. Schweinitz, the spores are narrowly elliptical, $20\text{--}25 \times 8\text{--}10\ \mu$.

SARCOSOMA CAROLINIANUM Durand sp. nov.—Plants solitary, sessile, attached by a dark brown tomentum; at first closed, then opening by a pore at the apex, expanding and enlarging finally becoming saucer-shaped, up to 4 cm. diam. Disk tawny-ochraceous, externally brown, covered with a thick, appressed, brown tomentum, threads very long $7\text{--}8\ \mu$ thick, septate, rather shining, but little wrinkled; substance tough-gelatinous, not at all watery, so that the plant nearly retains its shape, size and color when dry. Consistency of the dry plant *corky*, not horny and brittle, and exterior nearly even. Flesh white, excipulum composed entirely of interwoven hyphæ which are thick and septate, $5\text{--}6\ \mu$ diam. Asci clavate-cylindrical, narrowed below to a long, slender pedicel, apex rounded, not blue with iodine, $400\text{--}450 \times 18\ \mu$, opening by a lid. Spores 8, uniseriate, hyaline, smooth, continuous, elliptical, $25\text{--}30 \times 15\ \mu$ (the majority $28 \times 15\ \mu$); Paraphyses cylindrical, hyaline, septate, very little thickened at the free tips, $3\ \mu$ thick.

Attached to dead sticks, among leaves, on damp wooded slopes, alt. 3,500 ft., Blowing Rock, N. Carolina, Aug. and Sept., 1899, G. F. Atkinson (C. U. Herb. no. 4363); 1901, E. J. Durand (C. U. Herb. no. 12279).

This species is related to the last, but the characters may be contrasted as follows:

S. rufum.—Watery-gelatinous, turbinate or stipitate, attached by a narrow point, shrinking much in drying, becoming brittle and thin, the exterior much wrinkled, color usually changing, spores narrowly elliptical. Cortex parenchymatous.

S. carolinianum.—Tough-gelatinous, sessile by a broad base, changing but little in drying, becoming thick and corky, spores larger and broader proportionally. No parenchymatous cortex.

That the tougher substance of the present species when fresh is not due to dry weather conditions is shown by the fact that my own collection was made after two weeks of continuous rain and mist.

SARCOSOMA CYTTARIOIDES Rehm sp. nov.—Plants usually solitary but often 2-3 together, sessile, attached by a very narrow base; when young very small, closed, then opening by a minute pore above, enlarging and expanding, finally becoming plane or convex, the mature plant shaped like a biconvex lens, but somewhat more prominently convex below; disk dull black, usually with a dimple in the center; margin slight but distinct; externally black, more or less wrinkled or rugose, furfuraceous not tomentose, 1.5-3.5 cm. in diam., 1-2 cm. high; consistency spongy-gelatinous like soft rubber, substance greenish-yellow. Excipulum composed of very slender, long-drawn-out hyphæ, passing at the surface into a thin cortex of brown rounded cells, 8-10 μ in diam., projecting in groups. Asci slenderly cylindrical, apex rounded, not blue with iodine, 300-350 x 15 μ ; spores 8, uniseriate, hyaline continuous, smooth, narrowly elliptical, 25-30 x 12-14 μ ; paraphyses filiform, branched, yellow, cohering at the tips which are not yellow.

On dead stems of *Kalmia*, less commonly on oak, vitis and chestnut; also on leaves of chestnut, rhododendron etc.; observed also on living stems of *Kalmia* and chestnut near the ground. Thickets on the mountain side, alt. 3,500 ft., Blowing Rock, N. Carolina, Aug., 1901, Durand; found also by A. B. Troyer. (C. U. Herb. nos. 12278, 12279, 12280, 12281, 12282). Most abundant in Glen Burney.

The plants shrink very much in drying, and the disk becomes cinereous-olive. A beautifully distinct species. "Innerlich dem *S. platydiscus* und *rufum* nahe stehend."

NOTE: *Bulgaria globosa* Fr. is reported by Schweinitz, p. 178, but the specimen preserved in his herbarium is certainly not that species as described by Rehm and Karsten, and probably does not differ from *Sarcosoma rufum*.

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